Amendment to the Drawings:

Pursuant to 37 C.F.R. §§1.84 and 1.121(d), Applicant submits the enclosed Replacement Drawings for Figures 1, 2 and 3 for the corresponding drawings in the subject application. No new matter has been added to the application.

Remarks:

Claims 1-18 are pending in the subject application.

Claims 1 and 8 have been amended to clarify the claim.

Claims 1-3, 5, 9 and 10 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,502,881 ("*Gaydoul*"). Claims 6-13 and 15-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Gaydoul*. Claims 4 and 14 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Gaydoul* in view of Japanese Patent Publication No. 11-216513 ("*Hiroshi*").

§102(b) Rejections:

At page 2 of the instant Action, the Office asserts that Claims 1-3, 5, 9 and 10 are anticipated by *Gaydoul*. For at least the reasons discussed below, the Applicant respectfully requests that the anticipatory rejections be withdrawn.

The Applicant notes that on page 4 of the Action mailed on December 31, 2008, the Office admitted that *Gaydoul* failed to disclose "nozzles inclined in circumferential direction of rotation of the nozzle head." The present rejection is apparently premised on the Office withdrawing this prior statement of record. The Office now asserts that *Gaydoul* discloses this feature in Fig. 4 and Col. 5 lines 4-5. The Applicant disagrees with the Office and submits that the Office mischaracterizes what *Gaydoul* fairly discloses.

Gaydoul discloses inclining the spray axis of the nozzles radially outward with respect to the axis of rotation of each motor driven nozzle. For example, *Gaydoul* discloses the spray pattern extending radially, but makes no disclosure of the spray pattern extending in the circumferential direction with respect to the rotation of the

nozzle. *See* Fig. 4. *Gaydoul* discloses that the angle of inclination is between 0 and 15 degrees along main axis t (which is in the radial direction). *See* Fig. 5. Clearly, *Gaydoul's* disclosed angle of 15 degrees, at Col. 5, ll. 4-5 of the reference, is a specific embodiment of angle α shown in Fig. 9 and further described at Col. 3, ll. 60-67 of the reference. *Gaydoul* discloses that angle α is an angle designating the radial inclination of the nozzle with respect to the nozzle head axis. *Gaydoul* is wholly silent regarding inclining the nozzles in a circumferential direction (f,f') and makes no reference whatsoever to inclining the nozzles in the **forward direction** of the rotation of the nozzle head.

Gaydoul cannot anticipate Claim 1 as the reference does not disclose each and every element of the claim. *See* MPEP §2131. Claims 2-3, 5 and 9-10 ultimately depend from Claim 1 and are therefore in condition for allowance by virtue of dependency alone and without addressing the additional patentable elements thereof. Reconsideration and withdrawal of the rejection of Claims 1-3, 5 and 9-10 is respectfully solicited

§103(a) Rejections:

Spanning pages 4-7, the Office asserts that Claims 6-13 and 15-18 are obvious in view of *Gaydoul* and that Claims 4 and 14 are obvious in view of *Gaydoul* and further in view of *Hiroshi*. For at least the reasons discussed below, the Applicant respectfully requests the obviousness rejections be withdrawn.

Claims 1 and 8 require, *inter alia*: "inclining the nozzles in circumferential direction (f,f') in the **forward direction** of the rotation of the nozzle head." As outlined above, *Gaydoul* does not does not disclose, teach, suggest or make any reference whatsoever to this recited limitation. Rather, the only teaching or suggestion to modify

Gaydoul as the Office proposes is found in the claims themselves and using this, as the Office apparently has, constitutes impermissible hindsight. The Office is clearly using the claims as a blueprint in its assertion that *Gaydoul* discloses inclining nozzles in a circumferential direction in the forward direction of rotation of the nozzle head or that the noted structural differences between *Gaydoul* and the claims are merely "obvious matters of design choice."

For example, the recited limitation "inclining the nozzles in circumferential direction (f,f') in the forward direction of the rotation of the nozzle head" permits the nozzles to be "leading in the direction of rotation f or f' of the nozzle heads" and "leading with respect to the rotary movement of the nozzle head." *See, e.g.* para [0008}; [0023] of the published patent application specification. This feature leads to an increased momentum of the ejected water in the direction along the surface of the workpiece, so that scale particles are efficiently chipped off from the workpiece and are prevented from falling back onto the workpiece. Neither the limitation nor this respective advantage is disclosed, taught or suggested by *Gaydoul*.

Additionally, "inclining the nozzles in circumferential direction (f,f') in the forward direction of the rotation of the nozzle head" is particularly effective in removing scale from the zones between the adjacent nozzle heads, and hence prevents the forming of surface stripes on the workpiece. *See, e.g.* para [0021] of the published patent application specification. Neither the limitation nor this respective advantage is disclosed, taught or suggested by *Gaydoul*.

Furthermore, an inclination of the nozzles in circumferential direction in the

forward direction of the rotation of the nozzle head also leads to an increased kinetic energy of the ejected water, since the movement of the quickly rotating nozzle head is superimposed onto the movement of the ejected water, and hence a more efficient descaling effect is achieved. *Gaydoul* is wholly silent regarding this advantage.

Still further, the improved descaling achieved by means of the additional inclination of the nozzles in circumferential direction in the forward direction of the rotation of the nozzle head has the further benefit of less water consumption. This added benefit prevents an unwanted cooling of the rolled stock during descaling and also permits a reduction in the requisite capacity of the high pressure pumps and diameter of the pipes and nozzle heads. Thus, a more compact descaling apparatus is achieved. *Gaydoul* does not teach or suggest this advantage.

Without using the claims as a blueprint (which would constitute impermissible hindsight), one of skill in the art would not be motivated to modify *Gaydoul* as the Office suggests. As each of the words of the claims must be considered, and as the Office cannot provide any teaching or suggestion in *Gaydoul* to modify the reference as it suggests, a *prima facie* case of obviousness cannot be established. *See* MPEP 2143.01; 2143.03. Claims 4, and 6-18 ultimately depend from Claims 1 and 8 and are therefore in condition for allowance by virtue of dependency alone and without addressing the additional patentable elements thereof. Reconsideration and withdrawal of the rejection under §103(a) of Claims is respectfully solicited

Information Disclosure Statement

Pursuant to 37 C.F.R. §§ 1.97(c) and 1.98, the Applicant submits herewith an

Information Disclosure Statement including U.S. Patent No. 3,883,075 (*"Edney"*). Consideration of this reference is hereby solicited.

Edney discloses that the nozzles of a nozzle head are inclined in a direction **opposite** to the direction of rotation of the nozzle head, to prevent the pressurized liquid from colliding with the side walls of the rotating nozzles and this to promote flow through the nozzles onto the workpiece surfaces. *See* FIG. 2, Col. 3, ll. 32-37. Thus, *Edney* teaches away from the limitation required by Claims 1 and 8 of "inclining the nozzles in circumferential direction (f,f') in the sense of rotation of the nozzle head".

Conclusion:

Applicant respectfully submits that Claims 1-18 are in condition for allowance. Accordingly, an early and favorable reconsideration of this application is respectfully requested.

The Office is requested and authorized to charge any fee associated with this application to Deposit Account No. 04-1679 to Duane Morris LLP.

Respectfully submitted,

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